



# Section B:1

## ***Waste Management***

### **PROJECT MANAGERS**

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## SUMMARY

Waste Management (WM) consists of the Solid Waste Storage and Disposal, Project Baseline Summary (PBS) WM03, Work Breakdown Structure (WBS) 1.2.1; Solid Waste Treatment, PBS WM04, WBS 1.2.2; Liquid Effluents - 200 Area, PBS WM05, WBS 1.2.3.1; and the Waste Encapsulation and Storage Facility, PBS TP02, WBS 1.4.2.

PBS WM05 is divided between WBS 1.2.3.1, Liquid Effluents (200 LEF) and WBS 1.2.3.2, 310 TEDF/340 Facility (300 LEF). The 310 TEDF/340 Facility work scope is included in the River Corridor Project, whereas the Liquid Effluents (200 LEF) work scope remains in Waste Management. For the purpose of performance analysis, PBS WM05 is reported in its entirety in the Waste Management Project (WMP), which has the majority of the work scope and funding.

Fiscal-year-to-date milestone performance (EA, DOE-HQ, RL) shows one of one milestones (100 percent) completed early. Tri-Party Agreement milestone, M-91-12, "Initiate Thermal Treatment of Contact-Handled — Low Level Mixed Waste (CH-LLMW)," was renegotiated with two milestones established in 2002 and 2005.

NOTE: Unless otherwise noted, the Safety, Conduct of Operations, Milestone Achievement, and Cost/Schedule data contained herein is as of April 30, 2001. Other data is updated as noted.

## NOTABLE ACCOMPLISHMENTS

**Accelerate Readiness to Receive Spent Nuclear Fuel (SNF) K Basin Sludge** - Seven deck sections have been cleared at T Plant and significant progress has been made on the remaining deck sections. WM is on schedule to complete the clearing of ten sections this fiscal year.

**Mixed Low Level Waste (MLLW) Treatment/Disposal** – WM completed two (2) additional shipments of thermally treatable waste to ATG Inc. (a total of 125 cubic meters [m<sup>3</sup>] this fiscal year). Combining this with the 446 m<sup>3</sup> of hazardous debris shipped to ATG for macroencapsulation this fiscal year gives a total of 571 m<sup>3</sup> between the two contracts. ATG is awaiting analysis results from their contracted laboratory on samples of thermal treatment residues (vitrification waste) that came from the initial thermal treatment campaign of Hanford's waste.

**Transuranic (TRU) Waste Retrieval** - The procedure for updating SWITS information on retrieval drums has been approved for use. Containers will be updated and readied for transfer to CWC. The Engineering Change Notice for HNF-2209, TRU Drum Safety Analysis Report for Packaging (SARP), has been developed and transmitted to RL for approval. The ECN will allow for higher drum weight limits and increased transfer efficiency.

**TRU Waste Processing** - Fiscal Year to Date (FYTD) production through May 16, 2001: 620 Nondestructive Examination (NDE), 633 Nondestructive Assay (NDA), 222 Headspace Gas Analysis, 58 Glove box Repackaging, 7 Visual Examinations (VE), four shipments to the Waste Isolation Pilot Plant (WIPP) and 35.2 m<sup>3</sup> certified.

**Liquid Waste Processing** - From October 1, 2000 through May 13, 2001, 16.4 million gallons of wastewater were processed through the 200 Area Effluent Treatment Facility supporting the Environmental Restoration Contractor 200-UP-1 Groundwater.

**Support to Nuclear Material Stabilization (NMS) Project** - In May, the first shipment of Hanford ash was received. This is the first of approximately 25 shipments required to meet ash stabilization commitments. Two revisions to the SARP were approved to allow shipments to commence.

**Support to River Corridor Project (RCP)** - The last Solid Waste Disposal Box (SWDB) was removed from the transport container and placed into a vault for final storage at the CWC.

**Waste Encapsulation and Storage Facility (WESF) Upgrades-** The facility completed the installation of a temporary electrical feeder panel and the tie-in of temporary feeder cables to all five WESF Motor Control Centers (MCCs). Completion of this work allowed electricians to begin pulling in new permanent feeder cable between the WESF substation and the five MCCs.

**WMP Voluntary Protection Program (VPP)** - The WMP VPP Strategic Plan was developed. It calls for completion of the project VPP self assessment in August, review of assessment results and development of an improvement plan in September, application submittal in October, and a DOE-HQ on-site review in December/January. The Strategic Plan has been distributed to all employees with a letter from the WMP Vice President. To raise both the employee and management awareness of VPP, the VPP Steering Committee developed a web site containing project specific VPP information. A monthly training bulletin (WMP VPP TidBits) is also utilized as part of the awareness and educational effort.

## **SAFETY**

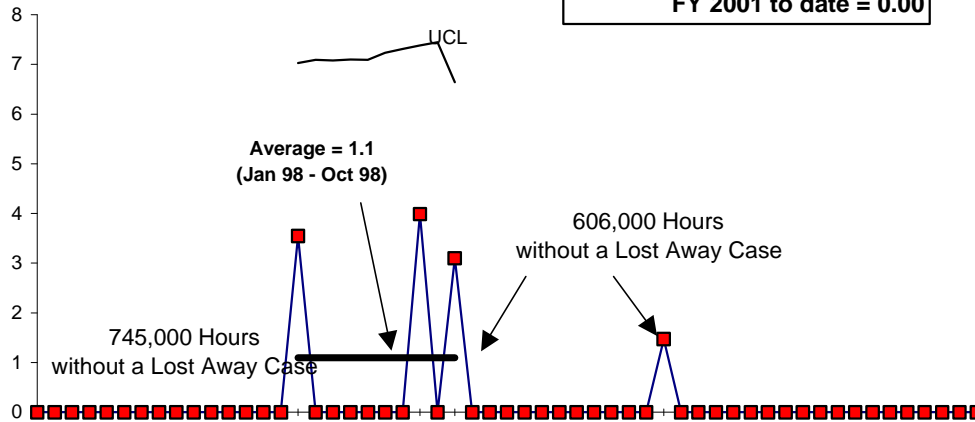
During April, there was one OSHA Recordable Case, nine First Aid Cases, one Report Only Case and one Not Job Related Case. A significant decrease in First Aid Cases has been noted at WMP. WM has achieved 2 million hours without a lost away workday. The WRAP project completed five years of operation without a lost time injury on May 22, 2001.

Green

### Lost Away Workday Case Rate

Cases per 200,000 hours

Project Safe Hours = 2,289,935  
FY 2000 = 0.13  
FY 2001 to date = 0.00

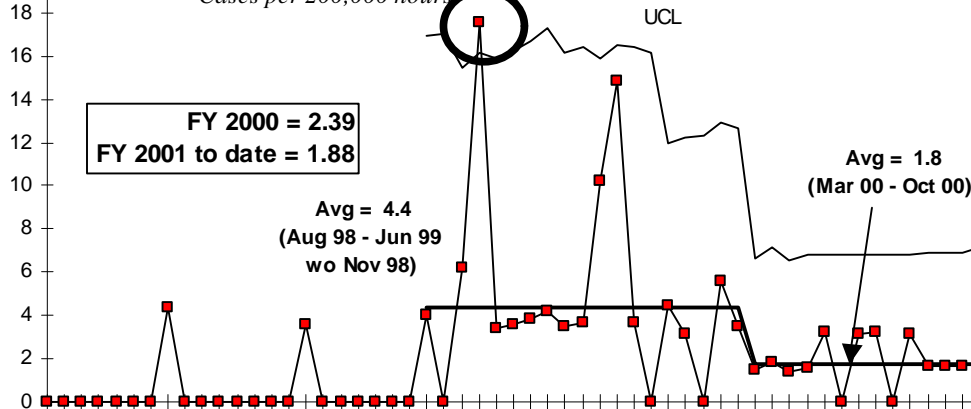


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### OSHA Recordable Case Rate

Cases per 200,000 hours

FY 2000 = 2.39  
FY 2001 to date = 1.88

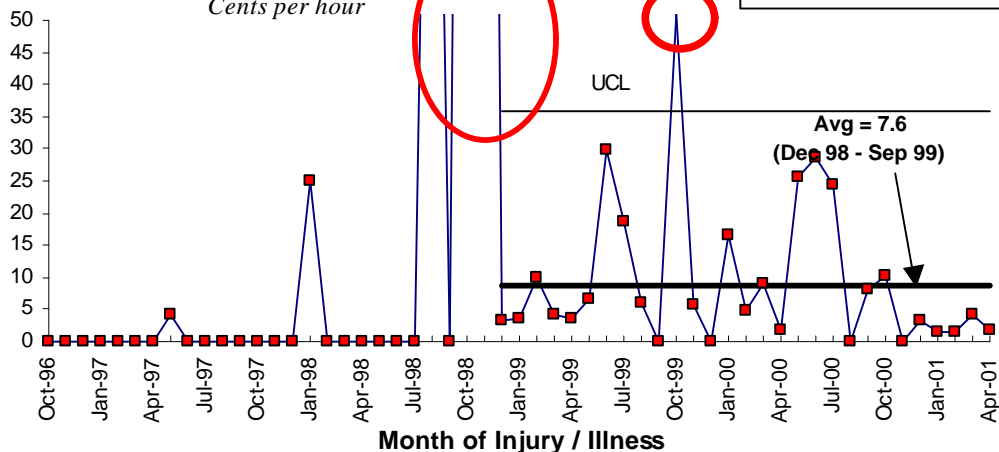


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### DOE Safety Cost Index

Cents per hour

FY 2000 = 15.1  
FY 2001 to date = 3.3



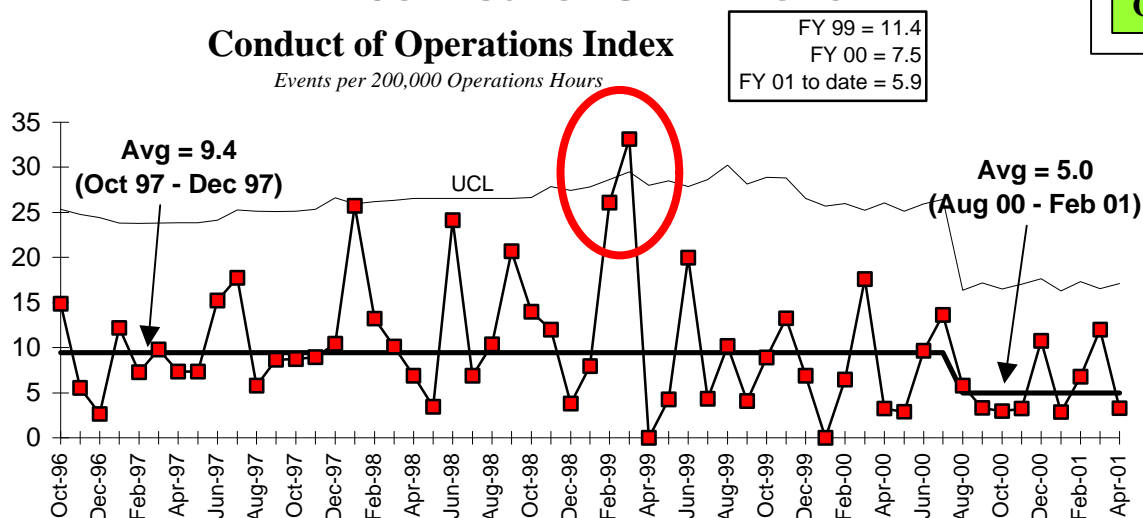
## ISMS STATUS

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- Concentrated efforts are being made to develop Performance Indicators required by the contract comprehensives for safety performance, the ISMS sustain and maintain effort, and ensuring operations are conducted in accordance with the System Description. The effort includes the ISMS Center of Expertise, Executive Management, and Facility Management.

## CONDUCT OF OPERATIONS

Green



## BREAKTHROUGHS / OPPORTUNITIES FOR IMPROVEMENT

### Breakthroughs

Green

Nothing to report at this time.

### Opportunities for Improvement

Green

**Hanford/Nevada Test Site Waste Generator Summit Meeting** - A Summit meeting is being planned to develop strategies for DOE Complex mixed low-level and low-level waste disposal. The Summit is being planned for June 26-28, 2001 in Lakewood, CO. Specific topics for discussion at the conference which will potentially present opportunities for improvement of both Complex-wide and Hanford programs include:

- Implementation of the Waste Management Programmatic Environmental Impact Statement (PEIS) record of decision
- DOE Disposal Program Standardization (waste acceptance criteria comparison, audits versus verification)
- Disposal Costs
- Waste Forecasts
- Disposal Site Performance Measures
- Development of a DOE Complex Integrated Schedule (national disposal strategy)

**T Plant Canyon Preparation for Receipt of Spent Fuel Sludge** - WM continues to prepare the T Plant canyon. Opportunities for improvement include size reduction of the two TRU PUREX towers in the T Plant Canyon. The Hanford As Low As Reasonably Achievable (ALARA) Center has been instrumental in this planning effort and assisting with the best method to complete the size reduction and packaging of this highly contaminated equipment. ALARA fixative will be applied to reduce smearable contamination and the majority of the size reduction will utilize the LaBounty shear.

## UPCOMING ACTIVITIES

**MLLW Treatment** - Continue commercial waste treatment at ATG and treated waste receipt and disposal at the Low Level Burial Grounds (LLBG).

**TRU Recertification Audit** - The Hanford TRU recertification audit is scheduled for the week of June 11, 2001, and will include the use of the PFP's NDA and Visual Examination (VE) technique.

**Land Disposal Restriction (LDR) Report** - The CY 2000 LDR report is on schedule for transmittal to RL by June 15, 2001 and issuance by RL to the regulators by June 30, 2001. Upcoming activities include incorporation of comments from the final RL and contractor review of the draft document, which ended May 17, 2001. In addition, a TPA change request will be developed, in accordance with Ecology expectations, to formalize some of the proposed milestones contained in the report.

**TRU Waste Retrieval** - Drum transfers to CWC are to resume in June. The contract for assay equipment and services is expected to be released, the vendor mobilized, and in-trench assay begun by the end of June.

**TRU Waste Shipment** - The next shipments to WIPP are scheduled for June 28th, July, and August 2001. The Carlsbad Field Office has indicated these shipments are contingent upon availability of TRUPACTs with priority to Rocky Flats and Idaho National Engineering Laboratory (INEEL).

**Tri-Party Agreement Milestone M-91-03, "Submit Hanford Site TRU/TRU Mixed (TRUM) Waste Project Management Plan (PMP) to Ecology"** - Ecology has not approved completion of M-91-03. Ecology has completed its preliminary review of the PMP, which was favorable. Ecology and DOE-RL have agreed to a further extension of the dispute into June 2001 to allow sufficient time for preparation of a Tri-Party Agreement (TPA) change request.

**Support to River Corridor Project (RCP)** - Support continues to the 324 facility in the shipment and placement of Hittman liners in the LLBG to meet the July 31, 2001 commitment date.

**Liquid Waste Processing** - Continue groundwater processing at the 200 Area Effluent Treatment Facility.

**Accelerate Readiness to Receive Spent Nuclear Fuel K Basin Sludge** - By September 30, 2001:  
1) Complete clearing of the remaining 3 sections of the T Plant deck; 2) Complete safety basis documentation and install long-lead procurements; 3) Install handling, drying and loading equipment; 4) Initiate contractor readiness activities, and 5) Complete removal of four large pieces of equipment.

**Nuclear Material Stabilization Support** - Continue to receive waste in support of the Plutonium Finishing Plant (PFP) Hanford ash processing through November 2001. Support resolution of NDA recalibration efforts at PFP.

## MILESTONE ACHIEVEMENT

Green

MILESTONE TYPE	FISCAL YEAR-TO-DATE				REMAINING SCHEDULED			TOTAL FY 2001
	Completed Early	Completed On Schedule	Completed Late	Overdue	Forecast Early	Forecast On Schedule	Forecast Late	
Enforceable Agreement	1	0	0	0	0	2	0	3
DOE-HQ	0	0	0	0	0	0	0	0
FO	0	0	0	0	0	0	0	0
RL	0	0	0	0	0	0	0	0
<b>Total Project</b>	1	0	0	0	0	2	0	3*

\* TPA milestone, M-91-12, "Initiate Thermal Treatment of Contact-Handled — Low Level Mixed Waste (CH-LLMW)," was renegotiated. Two new milestones have been established for December 2002 and December 2005. The previous M-91-12 milestone has been removed from the above chart.

Only TPA/EA milestones and all FY 2001 overdue and forecast late milestones are addressed in this report. Milestones overdue are deleted from the Milestone Exception Report once they are completed. The following chart summarizes the FY 2001 TPA/EA milestone achievement and a Milestone Exception Report follows. The last milestone table summarizes the first six months of FY 2002 TPA/EA milestones.

FY 2001 Tri-Party Agreement / EA Milestones			
Number	Milestone Title	Status	
<b>M-91-13 (A1C-01-001)</b>	<b>Initiate Disposal of CH-LLMW</b>	<b>Due 06/30/01 – Completed</b> 9/15/1999	<b>Green</b>
<b>M-91-18 (WMP-01-001)</b>	<b>Transmit T-Plant Sludge Storage Conceptual Design to Ecology</b>	<b>Due 06/29/01 – On Schedule</b>	<b>Green</b>
<b>M-26-05H (WMH-00-006)</b>	<b>Prep Biennial Tritium Treatment Technology Evaluation report</b>	<b>Due 08/31/01 – On Schedule</b>	<b>Green</b>
DNFSB Commitments			
Nothing to report at this time.			

## MILESTONE EXCEPTION REPORT

<u>Number/WBS</u>	<u>Level</u>	<u>Milestone Title</u>	<u>Baseline Date</u>	<u>Forecast Date</u>
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Overdue – 0

Forecast Late – 0

FY 1999 Overdue – 1

TRP-98-709	RL	Complete Hot Cell Deactivation	03/31/99	09/30/01
1.4.2		WESF Facility (A-E)		

**Cause:** This milestone is not complete due to not being supported at the current funding level.

**Impact:** No overall impact is expected.

**Corrective Action:** Funding for this work scope [Return-on-Investment (ROI)] has been identified and a new forecasted completion date of September 30, 2001 established.

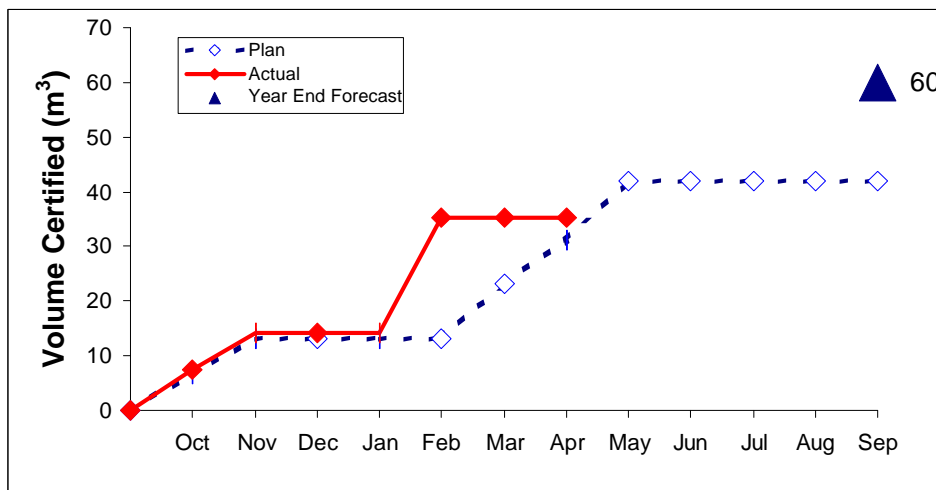
FY 2002 Tri-Party Agreement / EA Milestones		
Number	Milestone Title	Status
	Nothing to report at this time.	
DNFSB Commitments		
	Nothing to report at this time.	



## PERFORMANCE OBJECTIVES

### CERTIFY TRU WASTE (FHI-M6)

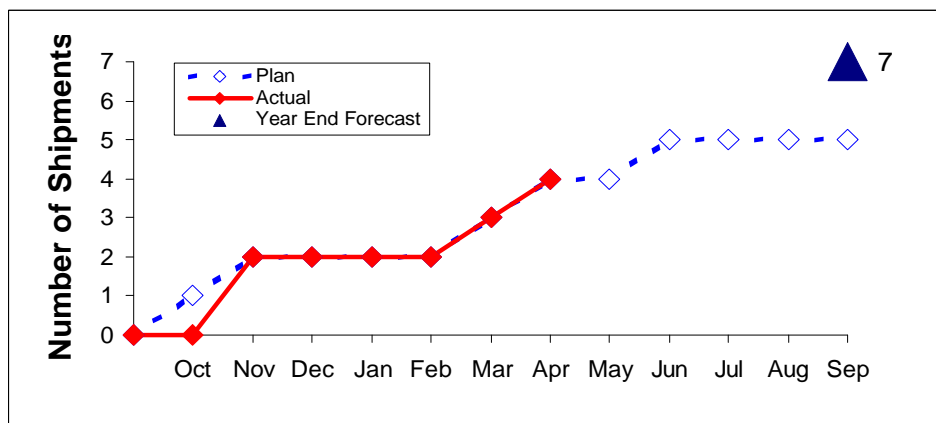
Green



Ahead of schedule with 35.3 m<sup>3</sup> certified. Current forecast is to complete 60 m<sup>3</sup> by September 2001.

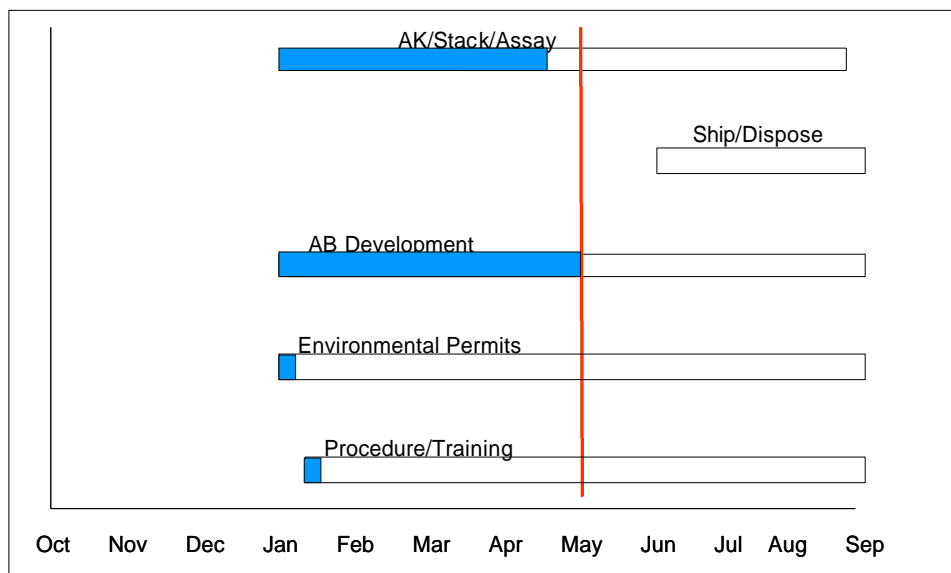
### SHIP TRU WASTE (FHI-M6)

Green



On schedule. One additional shipment completed in April 2001, bringing the fiscal year to date total to four. Current forecast is to complete seven shipments by September 2001.

## RETRIEVE TRU WASTE (FHI-M4)



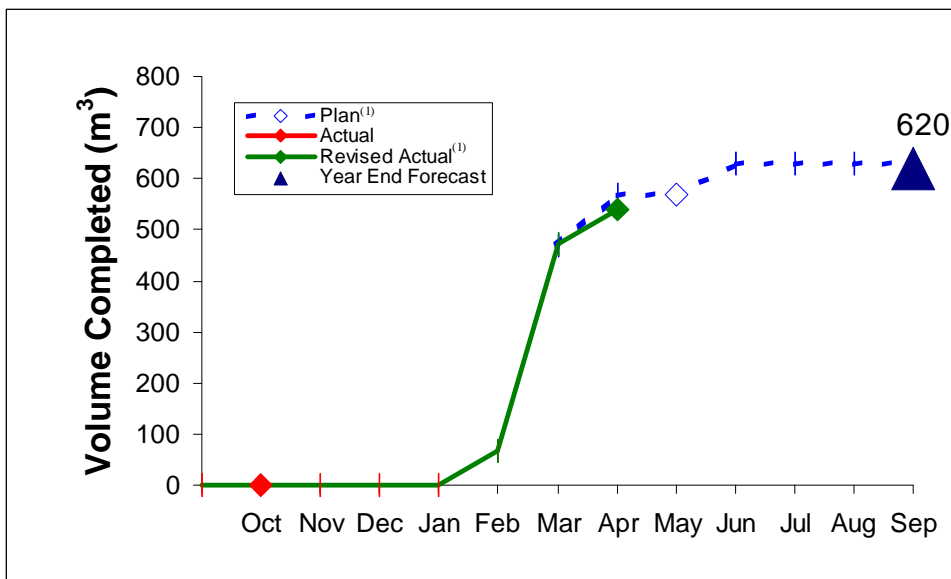
Yellow

FISCAL 2001

The Baseline Change Request (BCR) for uncovered drum retrieval and buried drum retrieval readiness activities was approved. The Request for Proposal (RFP) for field assay equipment was completed. Resource availability continues to be a problem.

## TREAT AND DISPOSE MLLW (FHI-M5)

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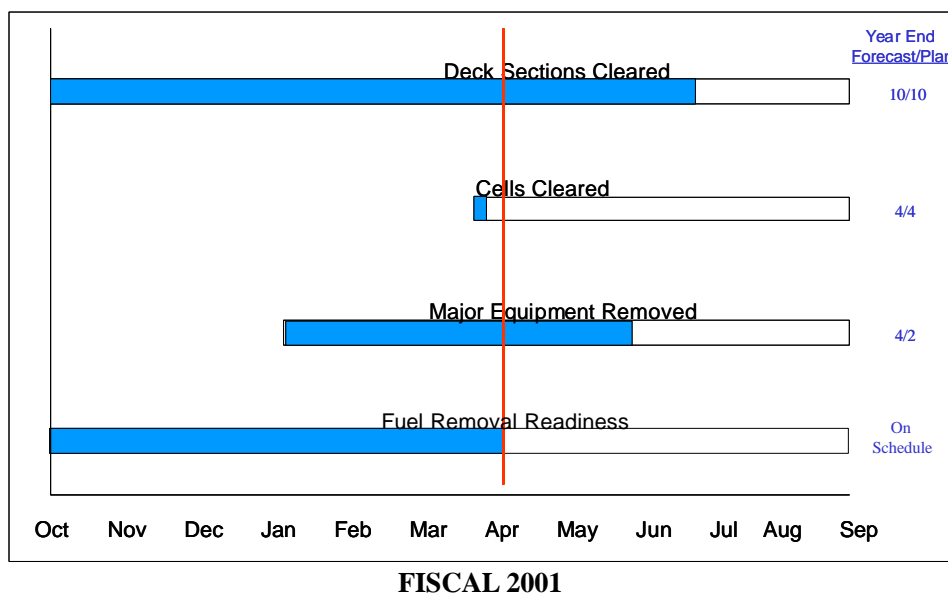


(1) Per FHI-M5, Rev. 1, 3/9/01

On schedule. Through April 2001, 541 m³ was shipped to ATG.

## ACCELERATE READINESS TO RECEIVE K-BASIN SLUDGE (FHI-M7)

Green



On schedule. Through April 2001, seven deck sections have been cleared and substantial progress has been made on the remaining deck sections.

## FY 2001 SCHEDULE / COST PERFORMANCE – ALL FUND TYPES CUMULATIVE TO DATE STATUS – (\$000)

Green

		FYTD									
	By PBS	BCWS	BCWP	ACWP	SV	%	CV	%	PEM	EAC	
PBS WM03 WBS 1.2.1	Solid Waste Storage & Disposal	\$ 14,673	\$ 14,630	\$ 13,416	\$ (43)	0%	\$ 1,213	8%	\$ 28,598	\$ 24,390	
PBS WM04 WBS 1.2.2	Solid Waste Treatment	\$ 20,556	\$ 21,027	\$ 22,510	\$ 470	2%	\$ (1,484)	-7%	\$ 38,830	\$ 40,725	
PBS WM05 WBS 1.2.3	Liquid Effluents - 200/300 Area	\$ 15,519	\$ 15,837	\$ 13,642	\$ 318	2%	\$ 2,194	14%	\$ 26,513	\$ 25,640	
PBS TP02 WBS 1.4.2	WESF	\$ 6,141	\$ 6,033	\$ 5,951	\$ (108)	-2%	\$ 82	1%	\$ 10,954	\$ 11,537	
Total		\$ 56,889	\$ 57,526	\$ 55,520	\$ 637	1%	\$ 2,006	3%	\$ 104,894	\$ 102,292	

Authorized baseline as per the Integrated Planning Accountability, and Budget System (IPABS) – Project Execution Module (PEM).  
Note: Above data includes RL contract for Steam.

## FY TO DATE SCHEDULE / COST PERFORMANCE

There is no significant schedule variance. The favorable cost variance is primarily due to vacancies and staff on leave in the Liquid Effluents 200/300 Areas.

For all active sub-PBSs and TTPs associated with the Operations/Field Office, Fiscal Year to Date (FYTD) Cost and Schedule variances exceeding + / - 10 percent or one million dollars require submission of narratives to explain the variance.

### Schedule Variance Analysis: (+\$0.6M)

#### **Solid Waste Storage & Disposal — 1.2.1/ WM03**

**Description /Cause:** The unfavorable schedule variance of \$0.04M (0 percent) was within the established threshold.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

#### **Solid Waste Treatment — 1.2.2/ WM04**

**Description /Cause:** The favorable schedule variance of \$0.5M (2 percent) was within the established threshold.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

#### **Liquid Effluents — 1.2.3.1/ WM05**

**Description /Cause:** The favorable schedule variance of \$0.3M (2 percent) was within the established threshold.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

#### **WESF — 1.4.2/ TP-02**

**Description /Cause:** The unfavorable schedule variance of \$0.1M (2 percent) was within the established threshold.

**Impact:** No Impact.

**Corrective Action:** No corrective action required.

### Cost Variance Analysis: (+\$2.0M)

#### **Solid Waste Storage and Disposal — 1.2.1/WM04**

**Description and Cause:** The favorable cost variance of \$1.2M (8 percent) was within the established threshold.

**Impact:** None.

**Corrective Action:** No corrective action required.

#### **Solid Waste Treatment — 1.2.2/WM04**

**Description and Cause:** The unfavorable cost variance of \$1.5M (7 percent) is primarily due to a contract dispute settlement that requires payment upon shipment of waste, rather than the previous agreement of payment on return of waste. The prepayment caused a large variance that will be worked off as waste is returned.

**Impact:** None.

**Corrective Action:** The contract variance will be eliminated by year-end.

### Liquid Effluents — 1.2.3/WM05

**Description and Cause:** The favorable cost variance of \$2.2M (14 percent) is primarily due to labor underruns, reduced sample analysis and a reduced need for crane and rigging.

**Impact:** None.

**Corrective Action:** The underruns will be used to partially fund TRU retrieval.

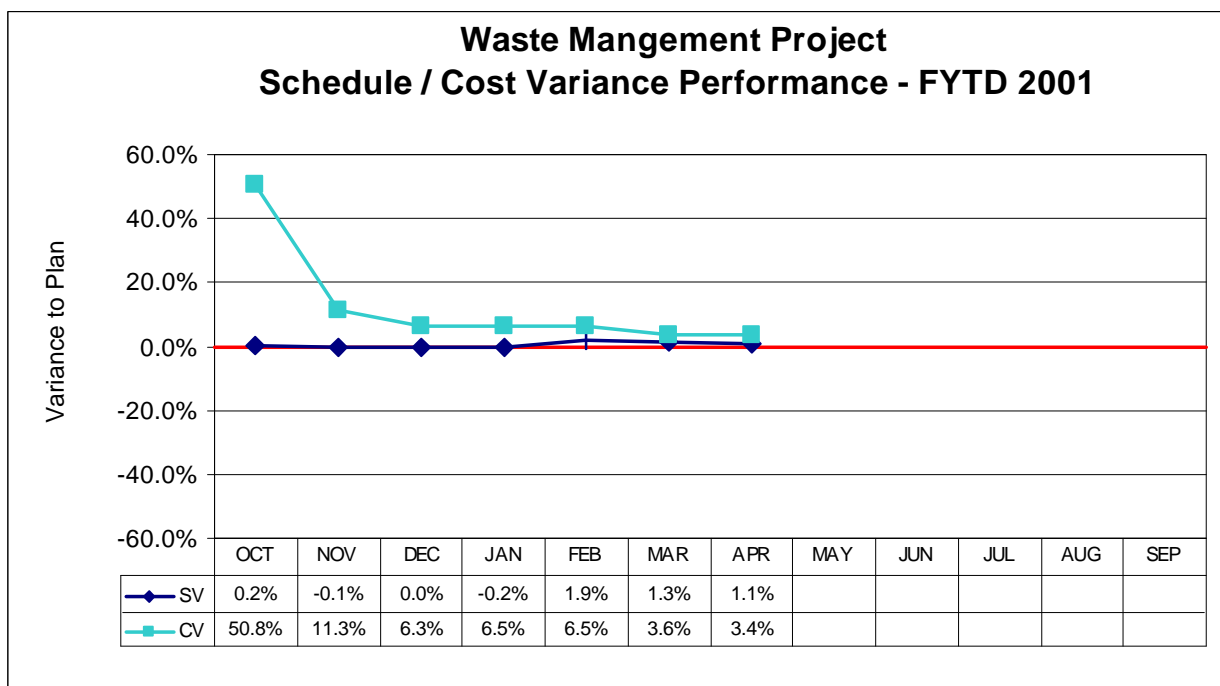
### WESF — 1.2.4/TP02

**Description and Cause:** The favorable cost variance of \$0.1M (1 percent) was within the established threshold.

**Impact:** None.

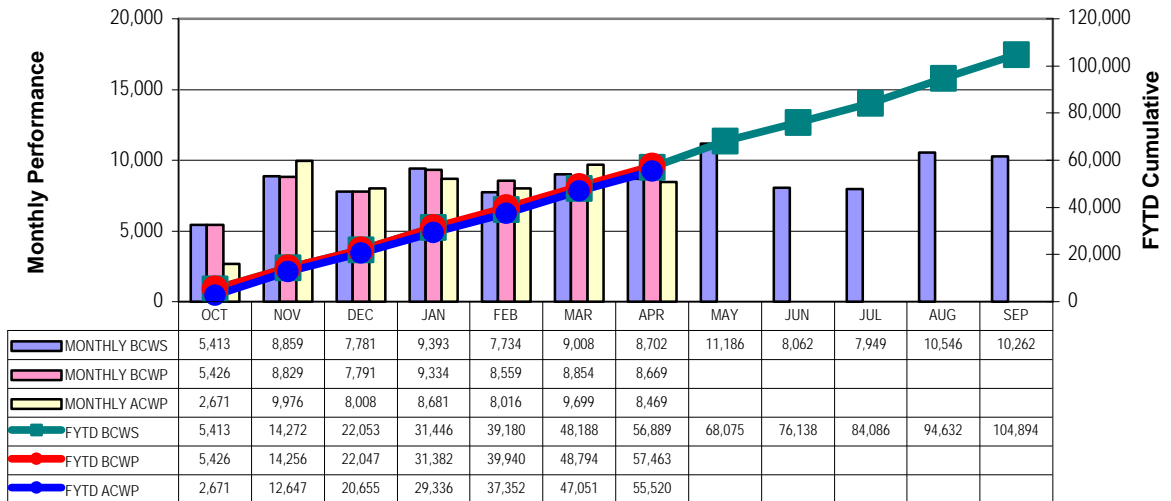
**Corrective Action:** No corrective action required.

## FYTD SCHEDULE / COST PERFORMANCE



## MONTHLY SCHEDULE / COST PERFORMANCE

### Performance Analysis Waste Management Project -- FYTD and Monthly (\$000s)



## FUNDS MANAGEMENT — FY 2001 TO DATE FUNDS VS SPENDING FORECAST (\$000)

Green

	Project Completion *			Post 2006 *			Line Items *		
	Funds	FYSF	Variance	Funds	FYSF	Variance	Funds	FYSF	Variance
The Plateau									
1.2 Waste Management									
TP02, WM03-05									
Line Item				96,724	94,673	2,051			
						0			
Total Waste Mgt. Operating				\$ 96,724	\$ 94,673	\$ 2,051			
Total Waste Mgt. Line Item									

\* Control Point

The above chart reflects the FH Project structure that divides certain Project Baseline Summaries between projects (e.g., WM05 – Waste Management and the River Corridor Project). Consequently, these figures will differ from those shown in other reports (as generated by the Project Execution Module [PEM] system).

## ISSUES

### Regulatory Issues

**Revision 7 of the Hanford Resource Conservation and Recovery Act (RCRA) Permit (a.k.a. Modification E) Application** — On March 30, 2001, RL, FH, Pacific Northwest National Laboratory, Bechtel Hanford, Inc., and CHG appealed the permit to the Washington Pollution Control Hearing Board. This stayed the effective date of the permit until the matter is resolved before the Board. The hearing has been scheduled to begin late October 2001.

**Impact:** There is the potential for substantial unplanned compliance costs and issues at the Waste Receiving and Processing facility and at the CWC. Costs may be incurred to support any litigation activities.

**Corrective Action:** A pre-hearing scheduled with the Pollution Control Hearing Board on May 22, 2001, with the appeal being heard from October 22 to November 5, 2001.

**Environmental Assessment (EA) for new LLBG Trenches** - An EA to support construction of four new trenches in the LLBG was issued for public comment. The new trenches are proposed for construction within the existing footprint of the LLBG, and are needed to support forecasted waste receipts and the segregation of Category I and Category III low-level waste. The public comment period has been extended to June 14, 2001. Responses to Ecology and Heart of America are currently being addressed. RL is evaluating the EA to see if it qualifies as an interim action to the Hanford Site Solid Waste Environmental Impact Statement. Both Ecology and Heart of America may be considering litigation if a "Finding of No Significant Impact" is issued for the EA. Currently the excavating season is diminishing due to the biological concerns associated with nesting birds.

**Impact:** Delaying excavation could jeopardize the Parks Township funding. Delays may affect the ability to use Parks Township funding for new trench construction. Delays may also have significant impact on the adequacy of trench space to support forecasted waste volumes.

**Corrective Action:** This issue will continue to be worked with RL.

### Technical, External, DOE Issues and DOE Requests

None identified at this time.

## BASELINE CHANGE REQUESTS CURRENTLY IN PROCESS

PROJECT CHANGE NUMBER	DATE ORIGIN.	BCR TITLE	FY00 COST IMPACT \$000	S C H	T E C H	DATE TO CCB	CCB APR'VD	RL APR'VD	CURRENT STATUS
WM-2001-020	3/28/2001	Unassigned Waste Sites	\$71			4/11/2001	TBD		
WM-2001-024	5/2/2001	Program Mgmt Account - Replacing WMP DOH	\$508			5/9/2001	5/16/2001	NA	Approved
FSP-2001-052	5/4/2001	WESF Transfer of BCWS due to WMP PMA Deletion	(\$508)			5/9/2001	5/16/2001	NA	Approved
ADVANCE WORK AUTHORIZATIONS									

## KEY INTEGRATION ACTIVITIES

- **SNF Project Support** — Preparing T Plant to receive SNF K Basin sludge.
- **Liquid Effluents** —Continue support of UP-1 Groundwater treatment at the 200 Area Effluent Treatment Facility.
- **RCP Support** — WMP continues to provide support to RCP for the removal of waste from the 324 and 327 buildings.
- **NMS Project Support** – WMP continued its support to the NMS Project for the removal of waste from the PFP.